**EXHIBIT 2**

**Martin Associates Report on The Economic Impact of Imported Iron and Steel Mill Products on the Nation's Marine Transportation System**

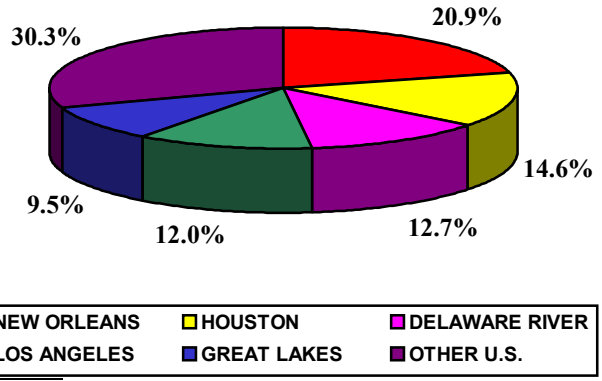
# The Economic Impact of Imported Iron and Steel Mill Products on the Nation's Marine Transportation System

In 2000, 36.4 million net tons of iron and steel mill products were imported into the United States. [1] Seven iron and steel mill product groups accounted for 97% of these imports.[2] Imports of sheets and strip account for 30% of the imports, followed by imports of ingots, blooms, billets and slab (23%). Bars and tool steel account for 12% of the import total, while pipe and tubing account for 11% of the imports. Wire rod accounts for 8% of the imports, followed by plates (7%), and structural shapes (6%). Not only is the share of imported iron and steel products concentrated within a small group of products, but 70% of the iron and steel imports are handled by five port regions within the United States. These port ranges are:

- Port of New Orleans Customs District
- Port of Houston Customs District
- Port of Los Angeles Customs District including the Port of Long Beach
- Philadelphia Customs District including the ports of Philadelphia, Camden (NJ), and Wilmington (DE).
- U.S. Great Lakes Port Region including the U.S. customs districts of Chicago, Detroit, Cleveland, Milwaukee and Duluth.

Exhibit 1 presents the distribution of the imported iron and steel products by these port regions.

Exhibit I
Distribution of Imported Iron and Steel Products by Port Region
2000




[1] U.S. Department of Commerce, U.S. Census Bureau , "U.S. Imports of Merchandise Trade by Water, 2000"
[2] American Iron and Steel Institute, Annual Statistical Report, 2000, Washington, DC

Because of the importance of imported iron and steel products to the port and maritime community handling these cargoes and the perceived economic importance to the economies in which the ports are located, it is the purpose of this analysis to quantify the economic impacts created by these imports. The import of iron and steel products is a relatively labor intensive process. As the ships carrying the imported iron and steel enter the channels leading to the ports, pilots who assist in navigating the vessels into the port meet the ships. Tugboats also meet the vessels to assist in the docking of the ships at the port's marine terminals. The iron and steel products are then off-loaded by members of the International Longshoremen Association (ILA) at the public marine terminals at the East Coast, Gulf Coast and Great Lakes ports and by members of the International Longshore and Warehouse Union (ILWU) on the West Coast. In addition, imported iron and steel products are also off-loaded at private terminals that often use other unionized labor such as members of the International Brotherhood of Teamsters, as well as non-unionized labor. At the Gulf Coast ports along the Mississippi River, about 60% of the imported iron and steel products are discharged directly onto barges (known as a midstream operation). The barges move the product directly to river terminals located along the nation's inland river system, where the steel products are off-loaded at inland river terminals located in such areas as Chicago, St. Louis, Louisville and Memphis.

After the products are discharged from the vessels (or the barges moving the products along the inland waterways), some steel is moved by forklifts operated by the terminal workers (most often members of the ILA or the ILWU) to dockside warehouses, while other products are moved to outside storage areas. Still other products are loaded directly onto rail cars. The imported iron and steel products are then moved from the port storage facilities by truck and rail cars to end users such as the nation's steel mills, steel processors, and inland steel service centers for further distribution to end users or intermediate processors. In some cases, the products such as slab, are imported directly by the domestic mills for use in the steel production process. Freight forwarders, logistics companies, customhouse brokers, and numerous federal government agencies are also involved in the import process.

Because of this apparent labor-intensive distribution network of imported iron and steel products, Martin Associates was retained by the Free Trade in Steel Coalition to quantify this economic impact. Martin Associates has developed more than 100 seaport economic impact models in the United States and Canada over its 16-year history, and the impact methodology used to assess the impacts of the imported iron and steel products is widely recognized by the maritime industry as highly defensible, yet conservative by design. The Appendix provides a summary of Martin Associates' experience and qualifications. The overall methodology is described in the next section.

## 1. IMPACT METHODOLOGY

The import of iron and steel products contributes to the local and regional economies by generating business revenue to local and national firms providing vessel and cargo handling services. These firms, in turn, provide employment and income to individuals, and pay taxes to state, local and federal governments. The impact of the iron and steel products to the economy is not reduced to a single number, but instead, the imports create several impacts. These are the revenue impact, employment impact, personal income impact, and tax impact. These impacts are non-additive. For example, the income impact is a part of the revenue impact, and adding these impacts together would result in double counting.

### 1.1 Business Revenue Impact

At the outset, iron and steel products imported via the marine terminals generate business revenue for firms which provide the cargo and vessel handling services, including stevedoring firms, vessel agents, trucking firms and railroads, steel trading companies, customhouse brokers, cargo and vessel surveyors and warehousemen. This business revenue impact is dispersed throughout the economy in several ways. It is used to hire people to provide the services, to purchase goods and services, and to make federal, state and local tax payments. The remainder is used to pay stockholders, retire debt, make investments, or held as retained earnings.

### 1.2 Employment Impact

The employment impact of the iron and steel imports consists of three levels of job impacts.

- $ Direct employment impact - jobs directly generated by the movement of the imported iron and steel products beginning when the vessel enters the port area to the distribution of the products to the inland ports, steel warehouses, steel service centers and end users. Direct jobs generated by the import of iron and steel products include jobs with trucking companies moving the products between the port and inland warehouses and ultimately to the end users, longshoremen, steamship agents, stevedores, warehousing, freight forwarders/logistics companies and customhouse brokers.

- $ Induced employment impact - jobs that are created throughout the local economy because individuals directly employed due to the import of the iron and steel products spend their wages locally on goods and services such as food, housing and clothing. These jobs are held by residents located throughout the port region, since they are estimated based on local and regional purchases.

$ Indirect Jobs - jobs that will be created locally due to purchases of goods and services by firms directly involved with the import of the iron and steel products, not individuals. These jobs include jobs with local office supply firms, maintenance and repair firms, parts and equipment suppliers, etc.

### 1.3 Personal Earnings Impact

The personal earnings impact is the measure of employee wages and salaries (excluding benefits) received by individuals directly employed due to handling the imported iron and steel products at the various stages of the distribution process, from the vessel discharge to the distribution to the final users. Respending of these earnings throughout the regional economy for purchases of goods and services is also estimated. This, in turn, generates additional jobs -- the induced employment impact. This re-spending throughout the region is estimated using a regional personal earnings multiplier, which reflects the percentage of purchases by individuals that are made within the port's regional economy. The direct earnings are a measure of the local impact since they are received by those directly employed by the iron and steel import activity at the ports.

### 1.4 Tax Impact

Federal, state and local tax impacts are tax payments to the federal, state and local governments by firms and by individuals whose jobs are directly dependent upon and supported (induced and indirect jobs) by the imported iron and steel products.

## 2. KEY IMPACT ASSUMPTIONS

In order to measure the economic impacts of the imported iron and steel products, Martin Associates developed operational economic impact models for the key ports located within the five port ranges – New Orleans, Houston, Philadelphia, Los Angeles and the Great Lakes Region. These impact models are based on actual operations at the marine terminals, both at public and private marine terminals at the ports of:

- New Orleans
- Houston
- Los Angeles
- Long Beach
- Philadelphia (Philadelphia Regional Port Authority)
- Camden (South Jersey Port Corporation)
- Wilmington (DE)
- Chicago (including the individual ports of Burns Harbor (IN) and Lake Calumet (IL))
- Cleveland
- Detroit
- Milwaukee
- Duluth

The impact models developed as part of this study include mathematical models of the specific terminals and support operations, including:

- $ Stevedoring operations – tons of iron and steel products discharged per longshoremen hour (ILA, ILWU and non-union) for specific types of imported iron and steel products and for midstream operations and dockside operations. Also, revenue models associated with the stevedoring and terminal operations have been developed for each port and by specific type of product

- $ On-terminal and off-terminal warehousing and storage operations

- $ Truck operations and geographic distributions

- Barge operational models for inland river distribution of the iron and steel products

- Rail distribution models.

In addition to direct terminal impacts, economic impacts are also estimated for support activities, including steamship agency activities, towing and pilotage activities, as well as vessel chandlering (supplies) and bunkering (purchase of fuel). These impacts of support operations are based on interviews conducted with these service providers in each port. Towing and pilotage impacts are based on data developed from interviews with the vessel agents serving ships calling the terminals, as well as interviews with the various pilot organizations and tug assist operations serving each port area.

Jobs with trucking firms are estimated based on the average truck distance to inland steel service centers and/or to the intermediate or end users. Truck revenue is based on the average trucking rates provided to Martin Associates by the importers. Other terminal revenue is based on interviews with the terminal operators and warehouse operators, while vessel agency revenue and other support services revenue is based on interviews with these service providers.

Tax impacts are based on the percentage of per capita income paid in state, local and federal taxes, as obtained from the Tax Foundation for each state in which the ports are located.

An induced model was developed for each port area to measure the economic impacts of the local purchases for goods and services by those directly employed in handling the iron and steel imports at each port. These models are based on the actual local purchase patterns for the residents of the Delaware River region, the Houston area, the New Orleans area, the Los Angeles area, the Chicago area, the Cleveland area, the Duluth area, and the Milwaukee area, as measured by the Bureau of Labor Statistics, Consumer Expenditure Survey. Indirect impacts are those created by the purchases of

goods and services by the firms directly dependent on the import of iron and steel products through the marine terminals in the five port regions. These purchases were converted into indirect jobs and income using the Regional Input-Output Modeling System developed by the U.S. Bureau of Economic Analysis for the specific regions in which the ports are located.

The local purchases, as well as operational data, were provided to Martin Associates from interviews with the service providers at each port collected during this study, as well as from previous economic impact studies of the majority of these ports developed by Martin Associates. Martin Associates has developed port economic impact models that are commodity specific for the public and private marine terminals at the Port of Philadelphia, Port of Wilmington (DE), Port of Camden (South Jersey Port Corporation), Port of Houston, the Port of Chicago, the Port of Burns Harbor (IN), the Port of Milwaukee, the Port of Cleveland, the Port of Detroit, the Port of Duluth, the Port of Los Angeles and the Port of Long Beach. These port-specific models are based on interviews with more than 1,277 firms providing the services at the above noted ports. Martin Associates also interviewed the key steel terminals and stevedores handling the imported steel at each of the ports to calibrate the existing models for this specific impact assessment.

## 3. RESULTS

Using this methodology, the impacts of the 23 million tons of imported iron and steel products moving via the five port ranges under study were estimated. Table 1, on the following page, shows the economic impacts by the five port regions, as well as the combined economic impacts.

Table 1
Economic Impacts of Imported Iron and Steel Products at
the Five Major Port Regions

| | DELAWARE RIVER | HOUSTON | NEW ORLEANS | GREAT LAKES | LOS ANGELES | TOTAL |
|---|---|---|---|---|---|---|
| JOBS | | | | | | |
| Direct | 1,916 | 3,208 | 3,663 | 858 | 2,031 | 11,676 |
| Induced | 1,270 | 2,394 | 2,459 | 581 | 1,535 | 8,239 |
| Indirect | 1,224 | 1,854 | 2,496 | 522 | 1,137 | 7,233 |
| Total Jobs | 4,410 | 7,456 | 8,618 | 1,961 | 4,703 | 27,148 |
| PERSONAL INCOME (MILLIONS) | | | | | | |
| Direct | $76.5 | $132.5 | $120.6 | $33.7 | $102.4 | $465.7 |
| Induced/consumption | $76.3 | $163.9 | $141.9 | $39.5 | $106.8 | $528.4 |
| Indirect | $22.0 | $48.5 | $65.3 | $16.0 | $29.7 | $181.5 |
| Total Personal Income | $174.8 | $344.9 | $327.8 | $89.3 | $238.9 | $1,175.7 |
| BUSINESS REVENUE (MILLIONS) | | | | | | |
| | $303.3 | $228.8 | $312.0 | $116.7 | $140.3 | $1,101.1 |
| TAXES (MILLIONS) | | | | | | |
| State and Local | $21.3 | $31.0 | $33.8 | $8.9 | $23.4 | $118.4 |
| Federal | $48.7 | $81.4 | $77.4 | $21.1 | $56.4 | $285.0 |
| Total Taxes | $70.0 | $112.4 | $111.2 | $30.0 | $79.8 | $403.4 |

The 23 million tons of iron and steel products imported via the five port ranges in 2000 created the following economic impacts:

- More than 27,000 direct induced and indirect jobs were created by the handling of the imported iron and steel products at the five port regions of entry. Of these 27,148 total jobs, 11,676 jobs are classified as direct jobs. These jobs are jobs that would disappear if the steel products were not imported. Included as direct jobs are:

  - Jobs with the members of the ILA and ILWU (as well as members of other trade unions and non-unionized labor) unloading the steel from the ships and barges, warehouse and terminal operators handling the steel products after vessel discharge and loading trucks and rail cars at the dock,
  - Customhouse brokers handling the paper work for the steel products as the products clear customs,
  - Logistics companies arranging for the import of the steel,
  - Steamship agents handling the vessels' needs while in port,
  - Chandlers who provide supplies to the vessels while in port,
  - Pilots assisting in the vessel navigation along the approach channels to the deepwater ports and the Great Lakes/St. Lawrence Seaway System,
  - Tug crew assisting the vessels in docking,
  - Truckers and jobs with railroads distributing the steel products from the docks to the inland steel service centers and to the users,
  - Barge crew moving the imported iron and steel products along the inland river system from the Gulf.

- These 11,676 directly employed workers receive wages and salaries, a part of which is used to purchase local goods and services. These local purchases by those ***directly employed*** created the induced jobs with local suppliers of goods and services, such as food, health care, apparel, other retail purchases, housing, transportation, entertainment, etc. The local purchases by the directly employed support another 8,239 induced jobs.

- The local purchases by the ***firms*** directly involved in the handling of the iron and steel imports also make local purchases in the economy for such goods and services as equipment and parts, maintenance and repair, utilities, office supplies, etc. These local purchases by the firms support indirect jobs. As the result of these local purchases, an additional 7,233 indirect jobs are created by the local purchases. If the iron and steel import activity were to cease, these indirect jobs would no longer be supported.

- $1.2 billion of direct, induced and indirect wages and salaries were created as the result of the import of the iron and steel products at the five port regions. Of the $1.2 billion, those 11,676 directly employed received $465.7 million of wages and salaries, for an average salary of about $39,900. As the result of the re-spending of the direct income, another $528.4 million of induced wages and consumption expenditures were created. The 7,233 indirect jobholders received $181.5 million of wages and salaries.

- As the result of providing port services and truck, rail and barge distribution services, $1.1 billion of direct business revenue was created by the import of the 23 million tons of imported iron and steel products. This revenue does not include the local purchases supporting the indirect jobs.

- Local, state and federal governments received $403.4 million of tax revenue, of which $285 million was received by the federal government as the result of the 23 million tons of imported iron and steel products via the individual ports located in the five port regions under study.

It is to be noted that the five port regions under study handled 70% of the total steel imported into the United States in 2000. Since these port regions handle the majority of the steel imports, it is possible to use these impacts to estimate the economic impact of the total amount of iron and steel products imported in the United States in the year 2000. Assuming that the remaining 30% of the steel imported is handled and distributed in a similar manner as the 70% under study, the total economic impact of the 36.4 million net tons of iron and steel products imported into the United States in 2000 is estimated at:

- 38,800 direct, induced and indirect jobs
- $1.7 billion of direct, induced and indirect wages and salaries
- $1.6 billion of direct business revenue to those providing the port and inland transportation services to move the imported iron and steel products

- $576.3 million of federal, state and local tax revenues, of which $407 million is federal tax revenue.

As demonstrated, the import of iron and steel mill products provides a substantial contribution to the economies in which the importing ports are located, as well as to the national economy. Reductions in the import levels of iron and steel products will have a direct adverse impact on these local economies, as well as to the national economy. Based on the 38,800 direct, induced and indirect jobs supported by the 36.4 million tons of iron and steel products imported through our nation's marine transportation system, it can be concluded that for every 1 million tons of iron and steel mill products diverted from the nation's port system, nearly 1,100 jobs will be lost in the U.S. economy.